

# Mecklenburg County Common Code Defects

## Plumbing

### Code Defects

- Piping protection
- Piping protection missing or incorrect

### Code Description

#### PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS

**305.1 Corrosion.** Pipes passing through concrete or cinder walls and floors or other corrosive material shall be protected against external corrosion by a protective sheathing or wrapping or other means that will withstand any reaction from the lime and acid of concrete, cinder or other corrosive material. Sheathing or wrapping shall allow for expansion and contraction of piping to prevent any rubbing action. Minimum wall thickness of material shall be 0.025 inch (0.64 mm).

**305.2 Breakage.** Pipes passing through or under walls shall be protected from breakage.

**305.3 Stress and strain.** Piping in a plumbing system shall be installed so as to prevent strains and stresses that exceed the structural strength of the pipe. Where necessary, provisions shall be made to protect piping from damage resulting from expansion, contraction and structural settlement.

**305.4 Sleeves.** Annular spaces between sleeves and pipes shall be filled or tightly caulked in an approved manner. Annular spaces between sleeves and pipes in fire-resistance-rated assemblies shall be filled or tightly caulked in accordance with the International Building Code.

**305.5 Pipes through or under footings or foundation walls.** Any pipe that passes under a footing or through a foundation wall shall be provided with a relieving arch, or a pipe sleeve pipe shall be built into the foundation wall. The sleeve shall be two pipe sizes greater than the pipe passing through the wall.

**305.6 Freezing.** The top of sewer pipes, installed below grade outside the building, shall be below the frost line or 12 inches below finish grade whichever is greater. Water pipes installed in a wall exposed to the exterior shall be located on the heated side of the wall insulation. Water pipe installed in an unconditioned

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attic or unconditioned utility room shall be insulated with an insulation having a minimum R factor of 6.5 determined at 75°F in accordance with ASTM C-177.

**305.6.1 Frost Protection.** No traps or waste pipe shall be installed or permitted outside of a building, or concealed in outside walls or in any place where they may be subjected to freezing temperatures, unless adequate provision is made to protect them from freezing. Waste and soil pipe leaving the building shall have a minimum cover of 3 inches.

**305.7 Waterproofing of openings.** Joints at the roof and around vent pipes, shall be made water tight by the use of lead, copper, galvanized steel, aluminum, plastic or other approved flashings or flashing material. Exterior wall openings shall be made water tight.

**305.8 Protection against physical damage.** In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1.5 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of 0.062-inch-thick (1.6 mm) steel, shall cover the area of the pipe where the member is notched or bored, and shall extend a minimum of 2 inches (51 mm) above sole plates and below top plates.

**305.9 Protection of components of plumbing system.** Components of a plumbing system installed along alleyways, driveways, parking garages or other locations exposed to damage shall be recessed into the wall or otherwise protected in an approved manner.

***Disclaimer: There may be other ways to comply with the Code. If so, you are not required to use this method to comply with the Code. You may want to investigate other options, or consult with a design professional identifying an equally code compliant solution.***

End Notes

North Carolina Plumbing Code & North Carolina Mechanical Code & North Carolina Fuel Gas Code.  
International Code Council  
Southern Building Code Congress